

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Rommer Stefan

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Group Art Unit: 2617

Examiner: Chambers, Tangelia T

Confirmation No: 1372

For: Method and Network for WLAN Session Control

**Via EFS-Web**

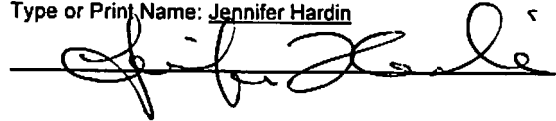
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**APPEAL BRIEF UNDER 35 U.S.C. §134**

This brief is submitted to appeal the decision of the Primary Examiner set forth in a Final Official Action dated November 19, 2009, finally rejecting claims 1-8, and an Advisory Action dated January 29, 2010, maintaining the claim rejections.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §41.20(b)(2) that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1379.

**Real Party in Interest**

The real party in interest, by assignment, is: Telefonaktiebolaget LM Ericsson (publ)  
SE-164 83  
Stockholm, Sweden

### **Related Appeals and Interferences**

None.

### **Status of Claims**

Claims 1-8 remain pending in the application, each of which are finally rejected. Claims 1-3 and 7-8 stand rejected, under 35 U.S.C. §103(a), as being unpatentable over Luo (U.S. Patent Publication No. 2003/0169713 A1) in view of Fascenda (U.S. Patent Publication No. 2004/0073672 A1); claims 4-5 stand rejected, under 35 U.S.C. §103(a), as being unpatentable over Luo in view of Fascenda and Jeong, *et al.* (U.S. Patent Publication No. 2006/0092888 A1); and claim 6 stands rejected, under 35 U.S.C. §103(a), as being unpatentable over Luo in view of Fascenda and Prasad, *et al.* (U.S. Patent No. 7,197,125 B1).

### **Status of Amendments**

The claims set out in the Claims Appendix include all entered amendments. No amendment has been filed subsequent to the final rejection.

### **Summary of Claimed Subject Matter**

<b>Claim Element</b>	<b>Specification Reference</b>
1. A network comprising at least one access point (AP) and one access controlling node, the access points making use of the Inter-Access Point Protocol (IAPP) for communication, wherein at least one mobile station may associate with the access points, wherein the identity of the mobile station can be approved by the access controlling node, wherein:	Page 6, line 27, <i>et seq.</i> Page 7, line 1, <i>et. seq.</i>
the access controlling node monitors whether a given mobile station has access to any of a given subset of access points and monitors an account relating to the given mobile station associated with a given access point of the subset of access points; and,	Page 7, line 8, <i>et seq.</i>
if detecting that the account relating to the given mobile station has a balance of zero, the at least one access-controlling node issues at least one IAPP message causing the access point of the subset with which the mobile	Page 7, line 14, <i>et seq.</i>

station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station.	
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Claim Element	Specification Reference
7. An access controlling node for connecting to a group of access points, the access points making use of the Inter-Access Point Protocol (IAPP) for communication and providing access to at least one mobile station, wherein the identity of the mobile station can be approved by the access controlling node, wherein:	Page 6, line 27, <i>et seq.</i>
the access controlling node monitors whether a given mobile station has access to any of a given subset of access points and monitors an account relating to the given mobile station associated with a given access point of the subset of access points; and,	Page 7, line 8, <i>et seq.</i>
if detecting that the account relating to the given mobile station is zero, the access-controlling node issues at least one IAPP message causing the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, and thereby terminating access for the given mobile station.	Page 7, line 14, <i>et seq.</i>

Claim Element	Specification Reference
8. A method of terminating access for a Wireless Local Area Network (WLAN) mobile station, comprising the steps of:	Page 7, line 8, <i>et seq.</i>
monitoring whether a given mobile station has access to any of a given subset of access points and monitoring an account relating to the given mobile station associated with a given access point of the subset of access points; and,	Page 7, line 8, <i>et seq.</i>
if detecting that the account relating to the given mobile station has a balance of zero, issuing an Inter-Access Point Protocol (IAPP) message causing the access point of the subset with which the given station is associated to disassociate the given station.	Page 7, line 14, <i>et seq.</i>

The specification references listed above are provided solely to comply with the USPTO's current regulations regarding appeal briefs. The use of such references

should not be interpreted to limit the scope of the claims to such references, nor to limit the scope of the claimed invention in any manner.

### **Grounds of Rejection to be Reviewed on Appeal**

- 1.) Whether claims 1-3 and 7-8 are unpatentable, under 35 U.S.C. §103(a), over Luo (U.S. Patent Publication No. 2003/0169713 A1) in view of Fascenda (US Patent Publication No. 2004/00073672 A1);
- 2.) Whether claims 4 and 5 are unpatentable, under 35 U.S.C. §103(a), over Luo in view of Fascenda and Jeong, *et al.* (U.S. Patent Publication No. 2006/0092888 A1); and,
- 3.) Whether claim 6 is unpatentable over Luo in view of Fascenda and Prasad, *et al.* (U.S. Patent No. 7,197,125 B1).

### **Argument**

#### **1.) Claims 1-3 and 7-8 are patentable over Luo in view of Fascenda**

##### **a.) Prosecution History**

So that the Board can best understand the arguments that follow, the Applicant will first briefly describe the prosecution history. The Examiner has previously rejected the claims several times as being unpatentable over Luo (U.S. Patent Publication No. 2003/0169713 A1) in view of several additional references. In the Final Office Action dated September 4, 2008, the principle claims were rejected as being unpatentable over Lou in view of Philsgard, *et al.* (U.S. Patent Publication No. 2004/0248547) and Jiang, *et al.* (U.S. Patent Publication No. 2008/0101291 A1). The Applicant filed a response traversing that ground of rejection, as well as pointing out that the finality of the office action was improper because no substantive amendments had been made in the Applicant's prior response and the Examiner had changed the basis of his claim rejections. The Examiner then issued an Advisory Action arguing that the final office action was not premature, in response to which the Applicant filed a Pre-Appeal Brief Request for Review. In a Notice of Panel Decision from Pre-Appeal Brief Review issued on March 13, 2009, the panel withdrew the final rejection and re-opened prosecution.

The Examiner then issued a rejection of the claims over Lou in view of Fascenda (US Patent Publication No. 2004/00073672 A1). In that Office Action, the Examiner's reasons for rejection stated that Luo discloses claim elements which the Examiner specifically acknowledged in prior office actions were not taught by Luo. The Applicant responded to the new basis of rejection with the following arguments.

**b.) Compilation of Prior Arguments**

Claim 1 recites:

1. A network comprising at least one access point (AP) and one access controlling node, the access points making use of the Inter-Access Point Protocol (IAPP) for communication, wherein at least one mobile station may associate with the access points, wherein the identity of the mobile station can be approved by the access controlling node, wherein:

the access controlling node monitors whether a given mobile station has access to any of a given subset of access points and monitors an account relating to the given mobile station associated with a given access point of the subset of access points; and,

if detecting that the account relating to the given mobile station has a balance of zero,

the at least one access-controlling node issues at least one IAPP message causing the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station. (emphasis added)

The Applicant's invention is characterized, in part, **by the use of IAPP protocol, which are conventionally used for handover purposes, for access control**, specifically to terminate an association of a mobile station with an access point in response to a determination that an account relating to the given mobile station has a balance of zero. The Applicants have reviewed the teachings of Luo, however, and find no such disclosure.

The Examiner acknowledges that Luo does not teach "detecting that [an] account relating to [a] given mobile station has a balance of zero," instead relying on the teachings of Fascenda. (See Office Action dated May 22, 2009; page 4, line 1, *et seq.*) The Examiner, however, separates the functions of Applicant's claim from the device that performs such function. The step of detecting an account balance, according to Applicant's invention, is performed by an access controlling node. In contrast, Fascenda

teaches a process in which a secure token "local to [a] device" contains access parameters that control access of the device to a network. (See Fascenda, paragraph [0015]). Thus, Fascenda actually teaches away from the claimed invention.

More importantly, however, the Examiner points to the teachings of Luo that relate to an IAPP announcement message as being equivalent to Applicant's claimed use of the IAPP protocol, by an access-controlling node, to issue "at least one IAPP message causing the access point of the subset with which [a] mobile station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station." There is no basis to equate the conventional use of IAPP messages described by Luo to the novel use thereof for the purpose of Applicant's claimed invention. It appears that the Examiner is merely picking and choosing similar technical terms found in Applicant's claim from sundry references without any regard to the novel functionality embodied by the combination of elements. All inventions are, of necessity, combinations of elements known in the prior art; only God works from scratch. The Examiner, however, does not have that power and must provide a rational basis for combining the recited elements to arrive at the claimed invention. The Examiner has not met that burden. Therefore, the Examiner has not established a *prima facie* basis to reject claim 1 as obvious over Luo in view of Fascenda.

In response to those arguments, the Examiner issued a Final Office Action on November 19, 2009, maintaining the claim rejections. In a Request for Reconsideration filed on January 19, 2010, the Applicant noted that the invention is characterized, in part, **by the use of IAPP protocol, WHICH IS CONVENTIONALLY USED FOR HANDOVER PURPOSES, for access control.** There is no teaching, motivation or suggestion in either Luo or Fascenda to modify the existing IAPP protocol to extend its use for the purpose of terminating an association of a mobile station with an access point in response to a determination that an account relating to the given mobile station has a balance of zero.

In the Final Office Action, the Examiner stated that "Luo discusses the MAP using IAPP signaling to send messages." Yes, Luo discusses sending IAPP messages; as with all protocols, some messages are required to be sent. Luo does not, however, teach an access-controlling node that **"issues at least one IAPP message causing the**

access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station." Luo fails to teach the extension of the IAPP protocol for the purposes of the Applicant's invention; *i.e.*, terminating access for a mobile station. According to the claimed invention, access is terminated when it is detected, by an access controlling node that monitors whether a given mobile station has access to any of a given subset of access points and monitors an account relating to the given mobile station associated with a given access point of the subset of access points, whether an account relating to the given mobile station has a balance of zero.

The Examiner points to Fascenda as teaching "sending a message instructing an access point to deny access to a mobile station when the mobile station's balance has been met or is exhausted." Fascenda, however, does not disclose, much less suggest, using IAPP messages in the manner claimed. The access controlling mechanism disclosed by Fascenda relies on the storing of a secure token stored in a user device; access is granted (or denied) based on the contents of that secure token. (Paragraph [0015]) In contrast, the Applicant's invention is characterized by an access-controlling node that monitors an account associated with a mobile station and, if the account reaches a balance of zero, issues an IAPP message to cause the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, thereby terminating access.

It is insufficient to establish a *prima facie* case of obviousness by pointing to the general ideas or principles of a claimed invention in one or more prior art references. To do so would allow the rejection of any new method for solving a problem by merely pointing to a reference that discloses the problem and a method for solving it, no matter how inferior the earlier method to the newly disclosed method. Rather, the proper test is whether one of ordinary skill in the art, when presented with a problem, would arrive at the claimed solution merely by reviewing the cited prior art references. In the present case, Luo fails to teach or suggest any extension or adaptation of the IAPP protocol for the purpose of terminating access upon detecting that the account relating to the given mobile station has a balance of zero. Fascenda fails to cure that deficiency. Although Fascenda relates to controlling access, the solution disclosed therein relies on a secure

token stored in a mobile station; the access point makes a decision “based on the parameters stored in the token without having to further check with a network-based or remote server.” (Paragraph [0015]) *In contrast*, the Applicant’s solution relies on an access controlling node that monitors whether a given mobile station has access to any of a given subset of access points and monitors an account relating to the given mobile station associated with a given access point of the subset of access points; it is the access controlling node (not an access point) that makes a decision and issues at least one IAPP message causing the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station.

Finally, the Examiner, in responding to Applicant’s prior arguments, asserted that “the suggestion to combine the references was shown in the background of the secondary reference.” The Examiner, however, doesn’t state what in the background provides such alleged suggestion. The Applicant has reviewed the background of Fascenda, as well as performed an electronic search of the entire reference, and did not find even a passing mention of the IAPP protocol. In what fashion, then, would that reference motivate one of ordinary skill in the art to modify the IAPP protocol for the purposes of the claimed invention? The IAPP protocol is conventionally used for handover purposes, not access control. Thus, the Examiner’s picking and choosing from the prior art the various technical terms and general functions embodied in Applicant’s claims is improper, and a *prima facie* case of obviousness has not been established.

For the foregoing reasons, claim 1 is not obvious over Luo in view of Fascenda. Whereas independent claims 7 and 8 recite limitations analogous to those of claim 1, they are also not obvious over those references. Furthermore, whereas claims 2-6 are dependent from claim 1, and include the limitations thereof, they are also not obvious over those references, or further in view of Funato, Sanda or Prasad.



Whereas independent claims 7 and 8 recite limitations analogous to those of claim 1, they are also not obvious over Luo in view of Philsgard and Jiang. Furthermore, whereas claims 2 and 3 are dependent from claim 1, and include the limitations thereof, they are also not obvious over those references.

**2.) Claims 4 and 5 are patentable over Luo in view of Fascenda and Jeong**

As established *supra*, claim 1 is patentable over Luo and Fascenda. The Examiner has not pointed to any teaching in Jeong to overcome the deficiencies in those references. Therefore, whereas claims 4 and 5 are dependent from claim 1, and include the limitations thereof, they are patentable over Luo, Fascenda and Jeong.

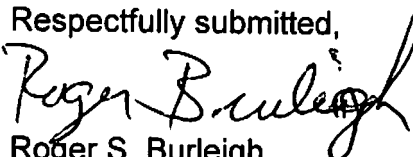
**3.) Claim 6 is patentable over Luo in view of Fascenda and Prasad**

As established *supra*, claim 1 is patentable over Luo and Fascenda. The Examiner has not pointed to any teaching in Prasad to overcome the deficiencies in those references. Therefore, whereas claim 6 is dependent from claim 1, and includes the limitations thereof, it is patentable over Luo, Fascenda and Prasad.

\* \* \*

## CONCLUSION

The claims currently pending in the application are patentable over the cited references and, therefore, the Applicant requests that the Examiner's claim rejections be reversed and the application be remanded for further prosecution.

Respectfully submitted,  
  
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## **CLAIMS APPENDIX**

1. (Previously Presented) A network comprising at least one access point (AP) and one access controlling node, the access points making use of the Inter-Access Point Protocol (IAPP) for communication, wherein at least one mobile station may associate with the access points, wherein the identity of the mobile station can be approved by the access controlling node, wherein:

the access controlling node monitors whether a given mobile station has access to any of a given subset of access points and monitors an account relating to the given mobile station associated with a given access point of the subset of access points; and,

if detecting that the account relating to the given mobile station has a balance of zero,

the at least one access-controlling node issues at least one IAPP message causing the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station.

2. (Previously Presented) The network according to claim 1, wherein the access controlling node is an authentication server connected to the Internet.

3. (Previously Presented) The network according to claim 2, wherein a second access control node is provided, the second access control node being a gateway node.

4. (Previously Presented) The network according to claim 2, wherein the access controlling node issues an IAPP ADD-notify message.

5. (Previously Presented) The network according to claim 2, wherein the access controlling node issues an IAPP MOVE-notify message.

6. (Previously Presented) The network according to claim 3, wherein the access controlling node issues a Lock out request to the gateway node.

7. (Previously Presented) An access controlling node for connecting to a group of access points, the access points making use of the Inter-Access Point Protocol (IAPP) for communication and providing access to at least one mobile station, wherein the identity of the mobile station can be approved by the access controlling node, wherein:

the access controlling node monitors whether a given mobile station has access to any of a given subset of access points and monitors an account relating to the given mobile station associated with a given access point of the subset of access points; and,

if detecting that the account relating to the given mobile station is zero,

the access-controlling node issues at least one IAPP message causing the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, and thereby terminating access for the given mobile station.

8. (Previously Presented) A method of terminating access for a Wireless Local Area Network (WLAN) mobile station, comprising the steps of:

monitoring whether a given mobile station has access to any of a given subset of access points and monitoring an account relating to the given mobile station associated with a given access point of the subset of access points; and,

if detecting that the account relating to the given mobile station is has a balance of zero,

issuing an Inter-Access Point Protocol (IAPP) message causing the access point of the subset with which the given station is associated to disassociate the given station.

\* \* \*

**EVIDENCE APPENDIX**

None.

**RELATED PROCEEDINGS APPENDIX**

None.